

**4715.2300 LOAD ON DRAINAGE PIPING.**

Subpart 1. **Computation of drain load.** The load on drainage system piping shall be computed in terms of drainage fixture units in accordance with subparts 2, 2a, and 3, except the administrative authority may allow variations where it is shown by a hydraulic analysis of the piping system, submitted to the administrative authority, that such variation would result in a more desirable flow rate in the piping system.

Subp. 2. **Values for continuous flow.** Fixture unit values for continuous or semicontinuous flow into the drainage system, such as from a pump, sump ejector, air conditioning equipment, or similar device shall be computed on the basis of one fixture unit for each gallon per minute flow.

Subp. 2a. **Values for intermittent flows.** Fixture unit values for intermittent flows from appliances and equipment which are specially designed for low water use, and used for retrofit in existing plumbing systems only, may be determined as follows:

Discharge Capacity (in gallons per minute)	Fixture Unit Value
up to 7-1/2	1 unit
8 to 15	2 units
16 to 30	4 units
31 to 50	6 units

A standpipe used for discharge from such appliances and equipment which is sized using these values must be labeled as intended for special low-water-use equipment only. Drainage piping in new construction must comply with subpart 3.

Subp. 3. **Table of fixture unit values for various plumbing fixtures.**

Type of Fixture	Fixture Unit Value	Minimum Fixture and Trap Drain Size
Clothes washer (domestic use)	2	1-1/2
Clothes washer (single unit, discharge to standpipe)	2	2
Clothes washer (public use in groups of 3 or more)	6 each	
Bath tub with or without shower	2	1-1/2

Bidet	2	1-1/2
Dental unit or cuspidor	1	1-1/4
Drinking fountain	1	1-1/4
Dishwasher, domestic	2	1-1/2
Dishwasher, commercial	4	2
Floor drain with 2 inch waste	2	2
Floor drain with 3 inch waste	3	3
Floor drain with 4 inch waste	4	4
Lavatory (single) or hand sink	1	1-1/4
Laundry tray (1 or 2 compartment)	2	1-1/2
Shower stall, domestic	2	1-1/2
Shower (gang) per head	1	
SINKS:		
Classroom, with or without drinking fountain	2	1-1/2
Domestic, with disposal unit and/or dishwasher	2	1-1/2
Surgeons	3	1-1/2
Laboratory cup sink	1	1-1/2
Flushrim or bedpan washer	6	3
Service	3	2
Pot or scullery	4	2
Soda fountain	2	1-1/2
Commercial (flat rim, bar, food prep, or counter sink)	3	1-1/2
Commercial (food-waste grinder or food prep sink with grinder)	4	2
Wash, circular, or multiple (per set of faucets)	2	1-1/2
URINAL pedestal, wall hung, with 3 inch trap (blowout and syphon jet)	6	3
Wall hung with 2 inch trap	3	2
Wall hung with 1-1/2 inch trap	2	1-1/2
Stall	3	2
WATER CLOSET	6	3
Unlisted Fixture or Trap Size		

1-1/4 inch	1
1-1/2 inch	2
2 inch	3
2-1/2 inch	4
3 inch	5
4 inch	6

**Statutory Authority:** *MS s 16B.59 to 16B.75; 326.37 to 326.45; 326B.101 to 326B.194; 326B.43 to 326B.49; 326B.52*

**History:** *19 SR 590; 23 SR 686; L 2007 c 140 art 4 s 61; art 6 s 15; art 13 s 4; L 2008 c 337 s 64; 36 SR 1479*

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